

## 20.32mm (0.8INCH) 16 SEGMENT SINGLE DIGIT ALPHANUMERIC NUMERIC DISPLAYS

PSA08-11EWA/GWA/YWA/SRWA

PSC08-11EWA/GWA/YWA/SRWA

PSA08-12EWA/GWA/YWA/SRWA

PSC08-12EWA/GWA/YWA/SRWA

### **Features**

- •0.8 INCH CHARACTER HEIGHT.
- •LOWCURRENTOPERATION.
- •HIGH CONTRAST AND LIGHT OUTPUT.
- •COMMON CATHODE AND COMMON ANODE AVAILABLE.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- •CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.
- •MECHANICALLY RUGGED.
- •STANDARD: GRAY FACE, WHITE SEGMENT.

## **Description**

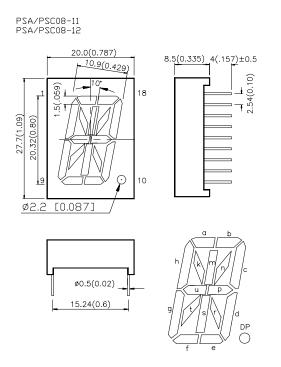
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

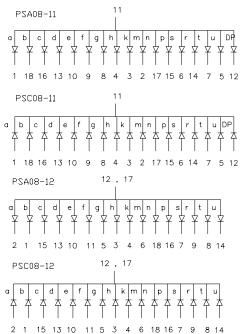
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

## **Package Dimensions & Internal Circuit Diagram**





### Notes

- 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
- 2. Specifications are subject to change whitout notice.

SPEC NO: CDA0870 APPROVED:J.LU REV NO: V.1 CHECKED: DATE: NOV/18/2001 DRAWN: S.H.CHEN PAGE: 1 OF 5



## **Selection Guide**

Part No.	Dice	<b>lv (ucd)</b> @ 10 mA		5	
		Min.	Тур.	Description	
PSA08-11EWA PSA08-12EWA	LUCLI EFFICIENCY DED (CAAAD(CAD)	1900	4700	Common Anode, Rt. Hand Decimal	
PSC08-11EWA PSC08-12EWA	HIGH EFFICIENCY RED (GaAsP/GaP)			Common Cathode, Rt Hand Decimal	
PSA08-11GWA PSA08-12GWA	CREEN (CoD)	1900	4700	Common Anode, Rt. Hand Decimal	
PSC08-11GWA PSC08-12GWA	GREEN (GaP)			Common Cathode, Rt Hand Decimal	
PSA08-11YWA PSA08-12YWA	VELLOW (CoAsD/CoD)	1200	3000	Common Anode, Rt. Hand Decimal	
PSC08-11YWA PSC08-12YWA	YELLOW (GaAsP/GaP)			Common Cathode, Rt Hand Decimal	
PSA08-11SRWA PSA08-12SRWA	CUDED PRICUT PED (CoAIAo)	8000	18000	Common Anode, Rt. Hand Decimal	
PSC08-11SRWA PSC08-12SRWA	SUPER BRIGHT RED (GaAlAs)			Common Cathode, Rt Hand Decimal	

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 565 590 660		nm	IF=20mA
λD	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 568 588 640		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red	45 30 35 20		nm	IF=20mA
С	Capacitance	High Efficiency Red Green Yellow Super Bright Red	15 15 20 45		pF	VF=0V;f=1MHz
$V_{F}$	Forward Voltage	High Efficiency Red Green Yellow Super Bright Red	2.0 2.5 2.2 2.5 2.1 2.5 1.85 2.5		V	IF=20mA
I <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V

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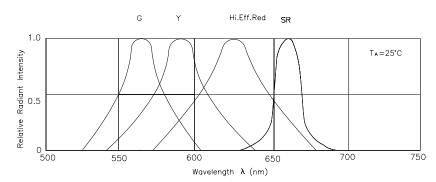
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## Absolute Maximum Ratings at T<sub>A</sub>=25°C

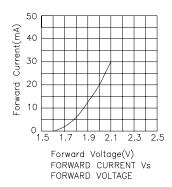
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units		
Power dissipation	105	105	105	100	mW		
DC Forward Current	30	25	30	30	mA		
Peak Forward Current [1]	160	140	140	155	mA		
Reverse Voltage	5	5	5	5	V		
Operating/Storage Temperature	-40°C To +85°C						
Lead Solder Temperature [2]	260°C For 5 Seconds						

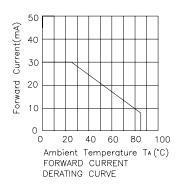
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
   2. 4mm below package base.

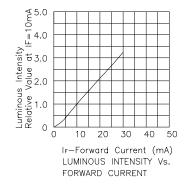


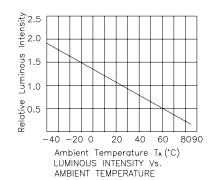
RELATIVE INTENSITY Vs. WAVELENGTH

## **High Efficiency Red**









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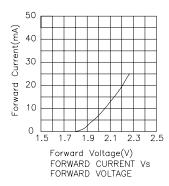
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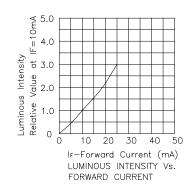
**DATE: NOV/18/2001** DRAWN: S.H.CHEN

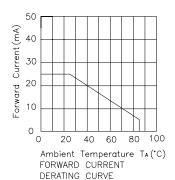
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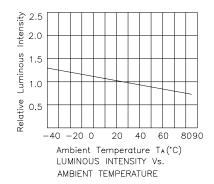
## **Kingbright**

## Green

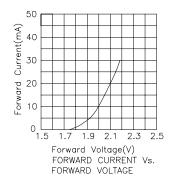


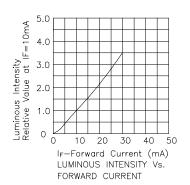


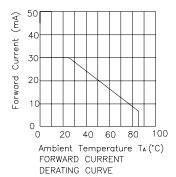


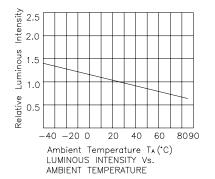


## Yellow





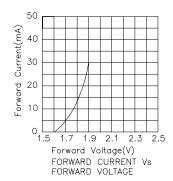


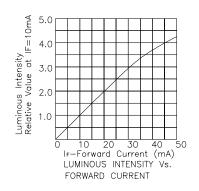


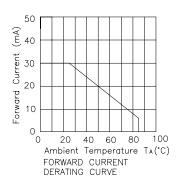
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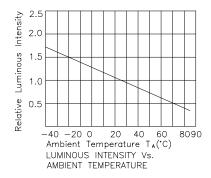
# Kingbright

## **Super Bright Red**









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